AVG Procedures

Neck Rotation - The head jig was placed on the subject who lay prone upon the table with head toward the camera with his head extending beyond the table far enough to allow rotation and with both hands by his side grasping the table to avoid rotation of the shoulders. It had to be in its lower position approximately ____ inches from the floor. This is a function of table height.

Neck Flexion/Extension - The subject then sat on the table with his right shoulder facing the camera. The light bar was rotated until parallel with the anterior/posterior axis. Camera height had to be elevated. A chair with arms would be preferable for this test to maintain the trunk in a relatively fixed position.

Lateral Flexion - The head fixture with the light bar was now rotated to coincide with the right to left axis; i.e., transverse axis of the body and the subject sat on the edge of the "table" facing the camera which was at the same elevation as the prior test. Again, a chair would be desirable here. An optimum arrangement would be a rotating chair/table which would be locked into position.

Shoulder Adduction - The way that this measurement is being made insures that it will always be zero. It can logically be dropped.

Shoulder Abduction - The camera will have to be elevated to its upper position. The individual stands and raises the arm to the maximum limit facing the camera. There were some difficulties with the clip-on light bar and it might be better to use elastic bands.

Shoulder Rotation (Internal/External) - As the format is presently laid out, one is skipping between right and left sides and we either should have the format changed such that one side is completed prior to the other or else have bilateral lights jigs made so that they could be put on both arms and then switched between the two

by means of the switch box. Again, the metal clips on the arm were somewhat insecure. They did not fit my arms very well. An elastic strap arrangement would probably be better.

Elbow Flexion/Extension - Here the camera must be elevated and the upper arm should be supported to insure stability between measurements. Again, a rotating chair with a fairly high arm rest which would be swung into place would be ideal especially if the "chair" could be swiveled.

Forearm Pronation/Supination - In this case one needs a low arm of the chair and although it is done bilaterally, it is so easy to exchange this one that redundancy is not required.

Wrist Deviation (Radial/Ulnar) - In this case the camera is lowered also and one also needs a low arm of the chair for stability such that the upper arm is parallel with the body and at right angles to the lower arm which needs to be supported. A better jig to hold the lights to the hand is needed here since none of the existing ones are efficient. I would recommend a unit with elastic bands on it.

Wrist Deviation (Flexion/Extension) - Again, one needs a low arm of the chair to stabilize the forearm while leaving the hand free and again one needs an improved jig.

Hip Flexion/Extension - The usual way of making this measurement is to have the subject lie prone and in this case again a fold down "chair" is needed and this would be rotated to the optimum. There is difficulty in seeing the opposite leg which ever side is chosen. There is no jig with bands large enough to accommodate many legs hence a jig with elastic bands should be made.

Hip Abduction - is not presently allowed for in this machine but would be a useful measure. It would require the making of a large jig attached to a waistband to measure the hip level and the same previously used thigh jig could be used here. The camera

is lowered in all of these measurements. The flexion/extension is also made with the subject lying prone on a table and again the chair would be useful.

Ankle (Plantar/Dorsi) Flexion - Again, a "chair" with a fold up backrest would be ideal here and especially one that pivoted. Also, an improved jig is also needed with elastic bands.